MFJ

UltraLite OCFD Wire Antenna

40/20/10/6 meters

Model MFJ-2010

INSTRUCTION MANUAL

CAUTION: Read All Instructions Before Operating Equipment

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VERSION 1A

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DISCLAIMER

Information in this manual is designed for **user purposes only** and is ***not*** intended to supersede information contained in customer regulations, technical manuals/documents, positional handbooks, or other official publications. The copy of this manual provided to the customer will ***not*** be updated to reflect current data.

Customers using this manual should report errors or omissions, recommendations for improvements, or other comments to MFJ Enterprises, 300 Industrial Park Road, Starkville, MS 39759. Phone: (662) 323-5869; FAX: (662) 323-6551. Business hours: M-F 8-4:30 CST.

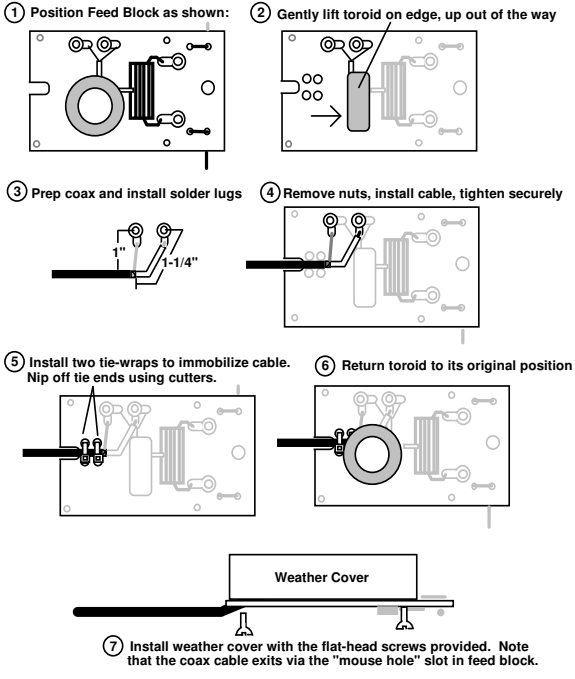
MFJ-2010 Off-Center Fed Dipole
for 40/20/10/6 meters

Introduction

Thank you for purchasing the MFJ-2010 OCFD. The MFJ-2010 Off-Center Fed Dipole is a "no-compromise" design for 40, 20, 10, and 6 Meters that delivers four of amateur radio's most interesting and popular DX bands to your fingertips with low SWR, high efficiency, wide bandwidth, and instantaneous frequency agility.

Installing Feedline

In order to minimize weight, the MFJ-2010 uses small-diameter coax that is connected directly into the feed-block matching network. RG-58, RG-8X (mini-8), or any of the low-loss LMR equivalents will work well. To attach cable, follow the instructions on the next page:



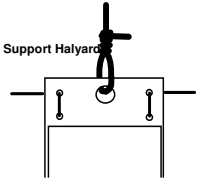
IMPORTANT NOTE:	**When installing low-loss cable, use care not to over-cinch tie-wraps as this may compress and damage the foam dielectric.**

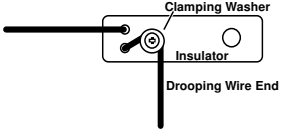
General Installation

The MFJ-2010 is 67 feet long -- the same length as a 40-meter dipole. Recommended mounting height is between 30 and 70 feet above ground. When possible, choose a location that is in the clear and free from large conductive surfaces or parallel wires that could interfere with normal operation. If a high support is available near the feed point, attach a halyard to the feed block and raise the antenna up to eliminate sag.

Portable Installation

PVC-jacketed wire permits some contact with branches and leaves, but avoid routing wire through dense vegetation as it may degrade performance significantly. If end supports are too close together for installing full length, the insulators provide the option to “droop” one or both antenna legs by a few feet. Feed excess wire through the stress relief holes and re-clamp it under the washer (see below). If only one good support is available, use a “V” style halyard mount, but keep both ends as far above the ground as possible to limit de-tuning.





Stealth Installation

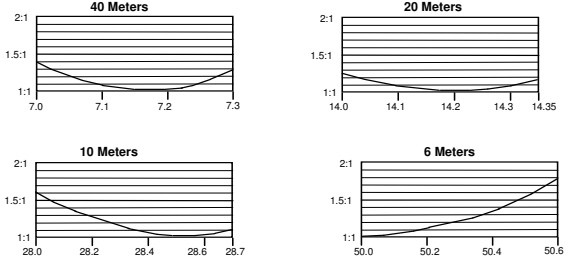
Support with dark-colored Dacron or nylon cord (1/8" is good). Because the matching system is located at the feed point and SWR along the coax is typically low, you may install your antenna at a relatively long distance from the operating location. This approach is especially desirable for condo or apartment installations to keep the antenna out of sight and to reduce interference from consumer electronic devices in neighboring units. Use RG-58 type coax for the antenna drop and transition to RG-8 low-loss direct-burial cable for the building run.

Power Rating

The MFJ-2010 is rated for 300-Watts PEP on SSB and CW. However, this rating may be adjusted when known feedline losses are present. For example, if your coax has a calculated loss of 3-dB on a given band, you may safely run up to 600 Watts PEP without damaging the matching network which is located at the far end of the cable. However, for modes with high power densities such as RTTY, SSTV, and AM, reduce the 300-Watt rating by at least 50% to avoid excess heat buildup inside the antenna's small unventilated matching enclosure.

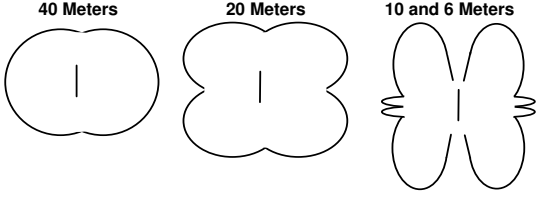
SWR

The sample SWR plots shown below were taken through 60 feet of low-loss (RG-8X) cable with the antenna mounted 45 feet above ground in a typical back-yard residential installation.



Patterns and Gain

On 40 meters, when mounted at 45 feet above average ground, the MJ-2010 models a dipole pattern with 6-dBi gain. On 20 Meters, the pattern is a full-wave figure eight with peaks of 9-dBi. On 10 and 6 Meters, the pattern becomes more “end-fire” with 11-dBi peaks.



Technical Assistance

If you have any problem with this unit first check the appropriate section of this manual. If the manual does not reference your problem or your problem is not solved by reading the manual you may call *MFJ Technical Service* at **662-323-0549** or the *MFJ Factory* at **662-323-5869**. You will be best helped if you have your unit, manual and all information on your station handy so you can answer any questions the technicians may ask.

You can also send questions by mail to MFJ Enterprises, Inc., 300 Industrial Park Road, Starkville, MS 39759; by Facsimile to 662-323-6551; or by email to techinfo@mfjenterprises.com. Send a complete description of your problem, an explanation of exactly how you are using your unit, and a complete description of your station.

LIMITED 12 MONTH WARRANTY

MFJ Enterprises, Inc. warrants to the original owner of this product, if manufactured by MFJ Enterprises, Inc. and purchased from an authorized dealer or directly from MFJ Enterprises, Inc. to be free from
defects in material and workmanship for a period of 12 months from date of purchase provided the following terms of this warranty are satisfied.

1. The purchaser must retain the dated proof-of-purchase (bill of sale, canceled check, credit card or money order receipt, etc.) describing the product to establish the validity of the warranty claim and submit the original or machine reproduction of such proof of purchase to MFJ Enterprises, Inc. at the time of warranty service. MFJ Enterprises, Inc. shall have the discretion to deny warranty without dated proof-of-purchase. Any evidence of alteration, erasure, or forgery shall be cause to void any and all warranty terms immediately.

2. MFJ Enterprises, Inc. agrees to repair or replace at MFJ's option without charge to the original owner any defective product under warrantee provided the product is returned postage prepaid to
MFJ Enterprises, Inc. with a personal check, cashiers check, or money order for **$10.00** covering postage and handling.

3. This warranty is **NOT** void for owners who attempt to repair defective units. Technicalconsultation is available by calling the Service Department at 662-323-0549 or the MFJ Factory at 662-323-5869.

4. This warranty does not apply to kits sold by or manufactured by MFJ Enterprises, Inc.

5. Wired and tested PC board products are covered by this warranty provided **only the wired and tested PC board product is returned.** Wired and tested PC boards installed in the owner's cabinet or connected to switches, jacks, or cables, etc. sent to MFJ Enterprises, Inc. will be
returned at the owner's expense unrepaired.

6. Under no circumstances is MFJ Enterprises, Inc. liable for consequential damages to person or
property by the use of any MFJ products.

7. Out-of-Warranty Service: MFJ Enterprises, Inc. will repair any out-of-warranty product provided the unit is shipped prepaid. All repaired units will be shipped COD to the owner. Repair charges will be added to the COD fee unless other arrangements are made.

8. This warranty is given in lieu of any other warranty expressed or implied.

9. MFJ Enterprises, Inc. reserves the right to make changes or improvements in design or manufacture without incurring any obligation to install such changes upon any of the products previously manufactured.

10. All MFJ products to be serviced in-warranty or out-of-warranty should be addressed to:

MFJ Enterprises, Inc.
300 Industrial Park Road
Starkville, Mississippi 39759 USA

and must be accompanied by a letter describing the problem in detail along with a copy of your dated proof-of-purchase.

11. This warranty gives you specific rights, and you may also have other rights which vary from state to state.